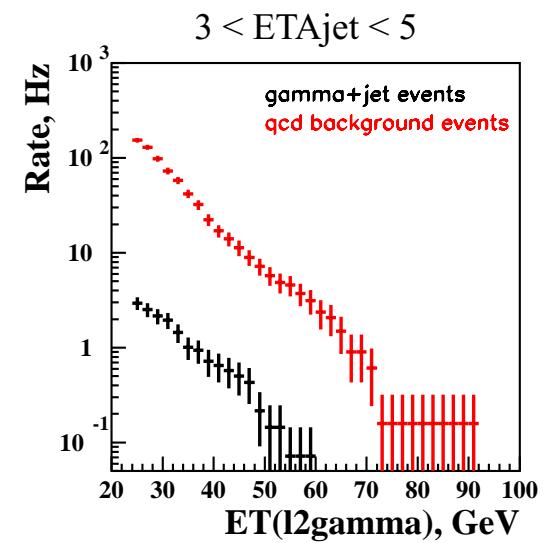
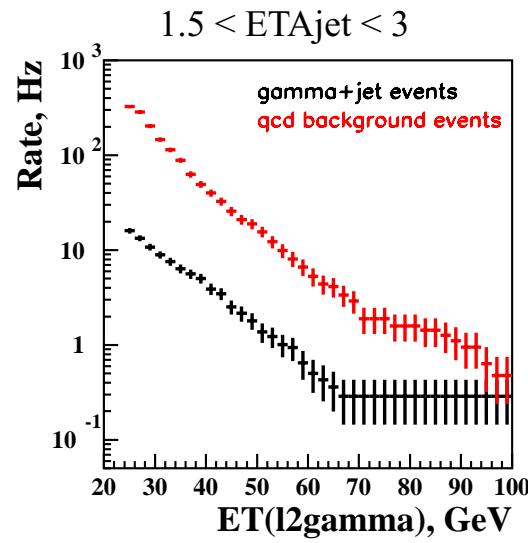
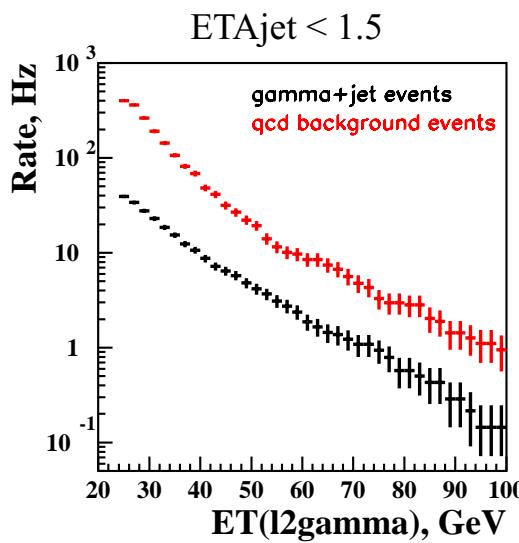


GAMMA+ JET CALIBRATION TRIGGER

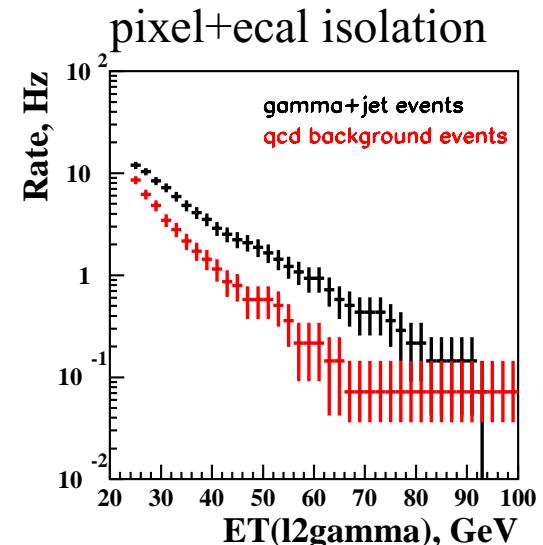
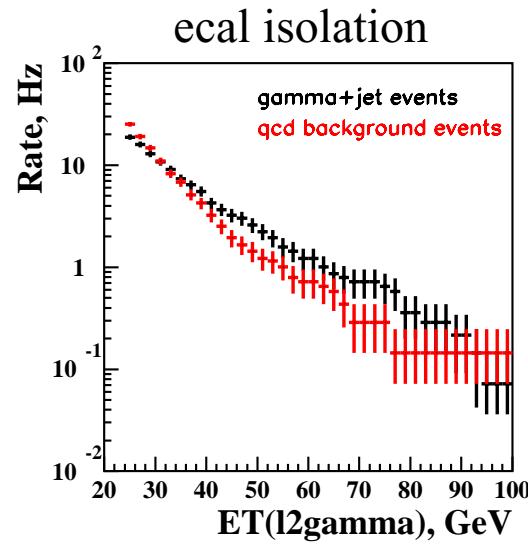
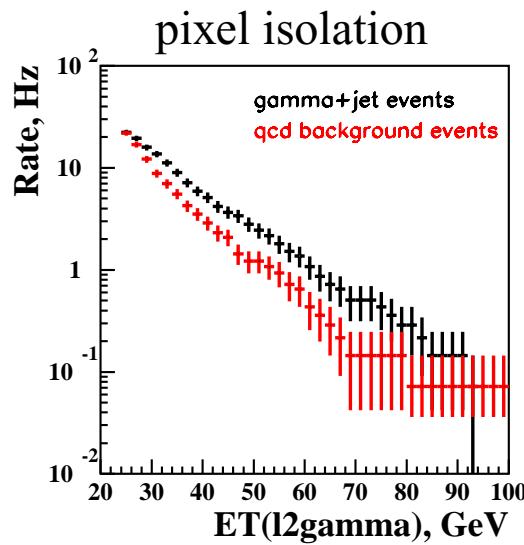
Level2 signal and background rates ($L = 2 \times 10^{33} \text{ cm}^{-2} \text{ s}^{-1}$)
single isolated L2 egamma candidate, $\text{ETA(L2egamma)} < 1.5$



QCD BACKGROUND SUPPRESSION

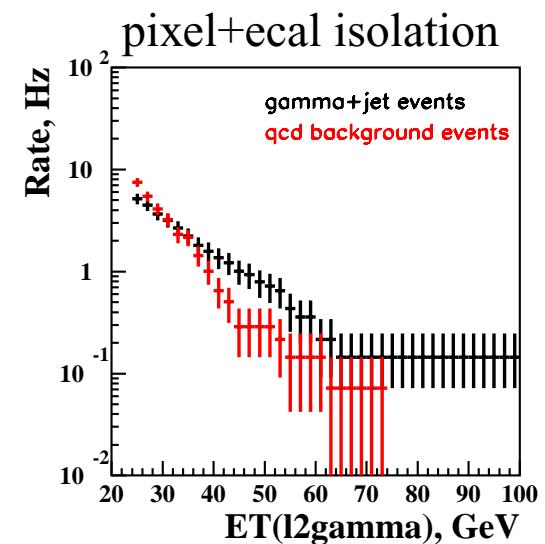
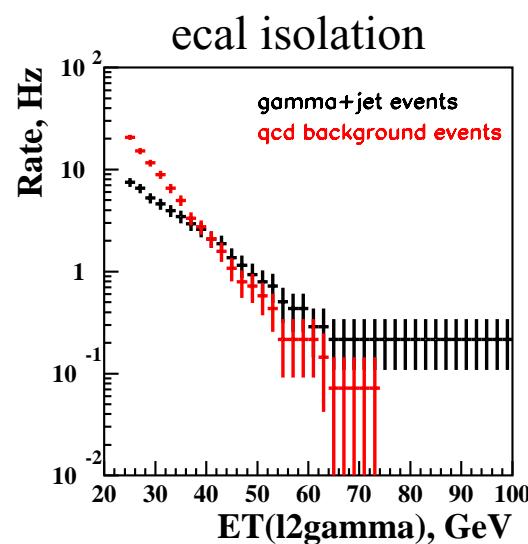
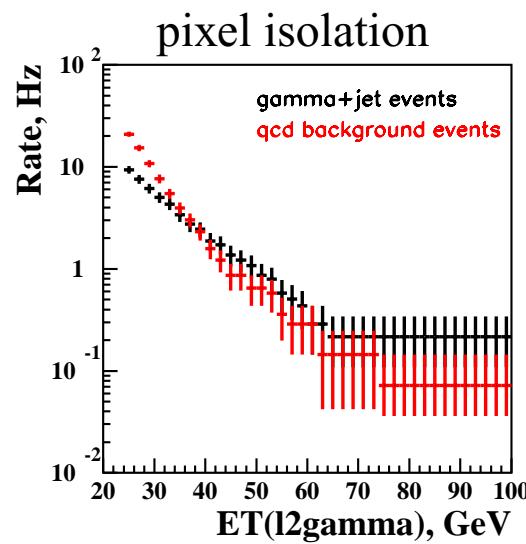
ETAgamma<1.5, ETJet < 1.5

- 1) Pixel isolation: no pixel line from the primary vertex in the cone $R=0.8$ around the L2gamma direction;
- 2) ECAL isolation: Sum of ECAL digis with $ET > 100$ MeV in the region $0.07 < R < 0.5$ around the L2gamma direction is required to be less than 2 GeV.



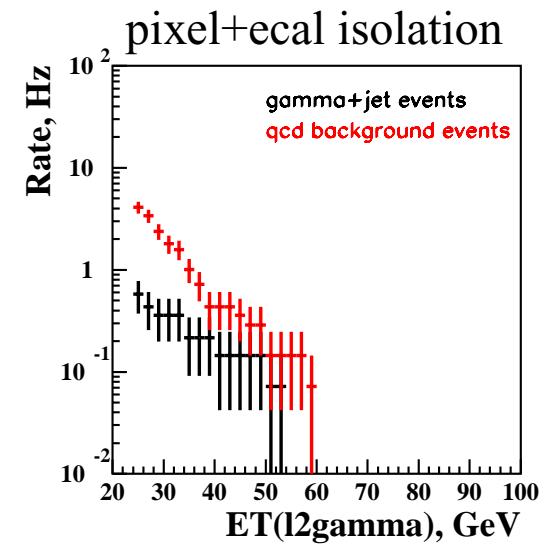
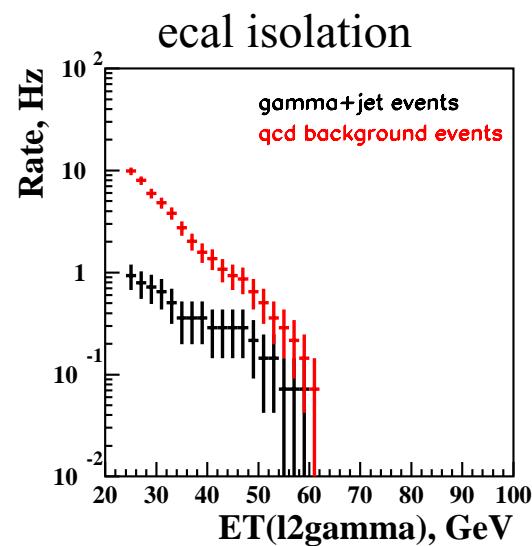
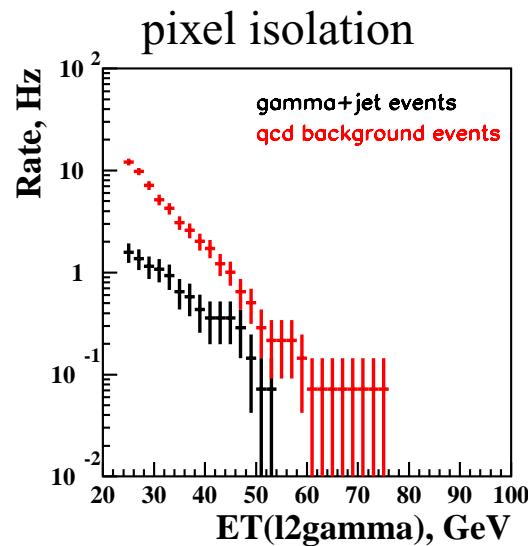
QCD BACKGROUND SUPPRESSION

ETAgamma < 1.5, **1.5 < ETAjet < 3**



QCD BACKGROUND SUPPRESSION

$\text{ETAgamma} < 1.5, \ 3 < \text{ETAjet} < 5$



Leading jets fall outside the pixel detector:
low efficiency (50%) of the correct reconstruction of signal vertices in gamma+jet events.

SUMMARY

For the purpose of the central jet calibration combining L1 gamma isolation with additional gamma isolation cuts in the pixel and ECAL detectors can suppress the QCD background below the signal (gamma+jet) level with the signal rates remaining sufficiently high to fill any reasonable bandwidth to the tape.

In the case of forward jets S/B remains as low as 0.1 (at low energies).